

EduMate: Peer Tutoring Scheduling System

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Repository: [GitHub - EduMate](#)

Live System: [EduMate Portal](#)

Project Identity

Executive Summary

eduMate (formerly the Peer Tutoring Scheduling System) is a centralized web application developed for **North-West University (NWU)** to facilitate coordination and communication between tutors and students. The platform focuses on automating the scheduling and management of tutoring sessions while providing integrated communication tools.

Key Features by User Role

Students (Tutees)

- **Search & Discovery:** Search for tutoring sessions by module, tutor, or session name.
- **Participation:** Join sessions to gain access to session-specific group chats.
- **Personal Dashboard:** Track attendance records, average ratings, and subject participation.

Tutors

- **Session Management:** Create, edit, and delete tutoring sessions.
- **Performance Analytics:** View statistics on teaching performance, offered modules, and specialties.
- **Student Management:** Track student attendance and engage via group or private messaging.

Administrators

- **User Governance:** Deactivate or reactivate accounts as needed.
- **System Oversight:** Override session settings and monitor system health.
- **Analytics Dashboard:** Real-time tracking of performance metrics and user engagement trends.

Technical Architecture

- **Frontend:** Built as a React single-page application (SPA) using **Vite** for high-performance development.
- **Backend:** Developed with **Node.js** providing robust RESTful API endpoints.
- **Real-Time Communication:** Integrated using **WebSockets** for instant private and group messaging.
- **Deployment:** Hosted on the **Microsoft Azure** cloud platform with Continuous Integration (CI) managed via **GitHub Actions**.

Core Purpose

The system is designed to replace manual scheduling with a robust, automated platform that improves the educational experience for both learners and educators through collaborative tools and data-driven insights.

